

Remarks/Arguments

Claims 1, 2, 5,9, 11, 12, 16, 17, 20, 23, 25, 26, and 30 are pending in this application.

Claims 3, 4, 6-8, 10, 13-15, 18, 19, 21, 22, 24, 27-29, and 31 are canceled by this amendment.

Claims 1, 2, 12, 16, 17, 26, and 30 are rejected under 35 U. S. C. 102(b) as being anticipated by Farmwald et al (2,816,608). Applicant respectfully traverses this rejection based on the this amendment and the following discussion:

It is important to note that this invention applies to hand-operated decorative punches, which are usually hand operated, are designed for limited use in cutting out the designed pattern of that punch and are used to cut thin sheets of material usually paper. These decorative paper punches are a consumer-based item, manufactured at low cost and sold in high volumes. They are not mounted on a bench or used for any type of high volume production.

Regarding claims 1 and 16 as currently amended, Farmwald et al discloses a variable sized gap that decreases as the cutting surface is moved closer to the work piece while the amended claims 1 and 16 now claim a fixed size slot to restrain and help locate the work piece or sheet of material being processed by the invention. The Examiner has noted this difference between Farmwald et al and the invention in the latest office action dated 6/14/2005 beginning on page 8, paragraph 16. It is not possible for Farmwald et al to anticipate a fixed size slot since such a fixed size slot is not included in any part of Farmwald et al and would not function with a tool such as described in Farmwald et al.

Regarding claims 2 and 17, Farmwald et al does disclose a cylinder as the overall shape of the moveable cutting die body, but this cylinder does not represent the cutting surface that will be in contact with the sheet of material when the invention is used. The cutting surface is perpendicular to the sheet of material being cut and the critical curve is also perpendicular to the surface of the sheet of material being cut. This curve is illustrated in

FIG 4 and FIG 5 of United States Patent 5,749,278 (Lee et al) referenced in this application and noted in by the examiner in the first office action dated 02/08/2005.

This curve to the cutting surface as part of the cutting die 20 in FIG 4 of United States Patent 5,749,278 shown in the vertical direction is critical to any punching operation since it is necessary to achieve a smooth cut of the sheet of material. Only a small portion of the cutting surface is in contact with sheet of material at any time during the punching operation as the cutting surface is moved downward into the sheet of material being punched. This is analogous to the cutting action of a pair of scissors where only a small part of each of the two blades of the scissors is in contact with the sheet of paper being cut. If there were not a shape in the cutting surface of the punch, there would be only a jagged hole created in the sheet of material, not a neatly cut pattern, which is the desired result. The invention takes advantage of this shape, which may be a curve or an angle or some combination of angles and curves, of the cutting surface by providing a adjustable stop to the vertical motion of the cutting die such that the amount of the pattern of that cutting die that is actually cut into the sheet of material can be varied. Prior to the invention, it was only possible to cut out the entire pattern of the cutting die from the sheet of material, which limits the projects that can be created by that punch.

The overall geometry of the cutting die is not limited; it can be any shaped geometry since it not critical to the use of the invention. Farmwald et al does not anticipate this curved cutting surface with the cylinder shape, that is the shape necessary for Farmwald et al since it must fit into a circular hole in the tool of Farmwald et al. The cylinder of Farmwald et al is curved in a direction parallel to the sheet of material, not perpendicular to that sheet of material.

It is interesting to note that Farmwald et al claims only a piston-activated tool, not a hand-operated tool as specified in this application.

Regarding claims 12 and 26, Farmwald et al only discloses an internally threaded adjustable stop such as a nut where the complete adjustable stop consisting of: an externally threaded sleeve 46 that is screwed into a counter bore of the base 1 about the rod 2. Adjustable along the upper end of the sleeve is a relatively thick nut 48 that constitutes the stop, proper and it is shown as backed up by a lock nut 49, the latter

serving to securely hold the nut in any position to which it is adjusted. The construction of this adjustable stop nut 48 and sleeve 46 of Farmwald et al makes it totally an integral part of the housing so that the entire adjustable apparatus of Farmwald et al is part of the housing, not just a portion. The invention has an externally threaded stop, a screw type piece of hardware, which can be easily, removed from the adjustable apparatus.

Regarding claim 30, a close examination of Farmwald et al shows that the adjustable stop 45 of Farmwald et al is an integral part of the tool of Farmwald and could not be added to existing tools similar in nature to the tool of Farmwald et al. Such an adjustable stop assembly could also not be added to decorative punches such as those illustrated in Lee et al while the adjustable apparatus of the invention could easily be added to punches such as shown in Lee et al and function properly.

In summary, the invention of Farmwald et al is not the same as the invention in the application as currently amended. There are elements in the invention such as the fixed size slot that are not part of Farmwald et al and could not be included in Farmwald et al. There are elements of Farmwald et al such as pistons that are not a part of the invention and could not be included in the invention.

Claims 1, 2, 11-13, 16, 17, and 25-27 stand rejected under 35 U. S. C. 103(a) as being unpatentable over Gouldsmith, Jr. (2,730,811) in view of Farmwald et al. Applicant respectfully traverses this rejection based on this amendment and the following discussion:

Regarding claims 1 and 16, Gouldsmith, Jr. discloses a punch apparatus, which is designed solely to form a conical shape on the top surface of a sheet of material. Gouldsmith, Jr. is not designed to fully punch through a sheet of material; it only displaces material on the top surface of a sheet of material while preparing that sheet of material for a subsequent operation such as drilling. As Gouldsmith, Jr. discloses in column 2 there is an elongated punching element 66 having its lowermost end pointed as at 68 for indenting work. This is the key function of Gouldsmith, Jr. There is no provision in Gouldsmith, Jr. for completely punching through a sheet of material and

there is no matching second surface to achieve a smooth cut through any sheet of material. If, by accident, the Gouldsmith, Jr. tool were to punch all the way through a sheet of material, it would leave a jagged surface on the bottom surface of the sheet of material much like a nail piercing a piece of wood.

It would not be obvious to add an adjustable apparatus as disclosed by Farmwald et al to Gouldsmith, Jr. since such an adjustable apparatus would have no useful purpose. Additionally the purpose of the adjustable apparatus of the invention is to stop the punching process, not to compensate for wear of the tool as disclosed by Farmwald et al.

Regarding claims 2 and 17, Gouldsmith, Jr. discloses a conical shape to the punch, which is used solely to indent the top surface of a sheet of material. It displaces material, but does not cut that material. This shape of Gouldsmith, Jr. could not punch through a sheet of material and create a clean punched pattern since there is no corresponding surface on the other side of the sheet of material. Gouldsmith, Jr. is a tool designed for an entirely different operation than punching through a sheet of material.

Regarding claims 11 and 25, the housing disclosed by Gouldsmith, Jr. does not contain a fixed size slot, which is a part of the invention and a part of said frame. The examiner had noted this difference in this last office action dated 6/14/2005 page 8, paragraph 16. This difference applies to both Farmwald et al and to Gouldsmith, Jr.

Regarding claims 12 and 26, Farmwald et al discloses that the complete adjustable apparatus must be incorporated into the frame of the tool. Farmwald et al does not include a housing to enclose that tool. Such a housing would interfere with the operation of the tool of Farmwald et al since that tool is designed to allow for easy removal of the cutting punch.

Claims 9 and 2 are rejected under 35 U. S. C. 103(a) as being unpatentable over Farmwald et al as applied to claims 1 and 16 above and further in view of Tanaka (3,472,101). Applicant respectfully traverse this rejection based on this amendment and the following discussion:

Regarding claims 9 and 23, which are rejected as being unpatentable over Farmwald and further in view of Tanaka (3,472,101) where Tanaka discloses a lever to activate the punch. A close review of Tanaka shows in Fig 5 and in claim 1 that the lever 9 is in sliding contact with a holding arm 10 and pivotally fixed to the moveable body 1 by brackets 32. This is completely different from the invention where the lever arm is in direct sliding contact with the moveable body of the cutting die and there is no holding arm as a part of the invention. This structure relating to the invention can be best viewed in FIG 4 and FIG 5 of Lee et al. Additionally, Tanaka discloses a U-shaped lever arm to be moved by hand while the invention discloses a thumb-actuated punch with a single lever designed to fit the thumb. The lever of Tanaka is designed specifically to maintain the lever 9 in engagement so that it will not be displaced outwardly from the moveable body 1 to avoid inadvertent movement of the body 11 by the included spring 14. The invention provides a much lower cost lever arm assembly, which is ergonomically designed to be actuated by the thumb.

Claims 1,5,16 and 20 stand rejected under 35 U. S. C. 103(a) as being unpatentable over Brandt (2,788,854 in view of Capewell (749,257)). Applicant respectfully traverses this rejection based on this amendment and the following discussion.

While Brandt discloses a machine for piercing sheet of material, it uses upstanding pins 26 spaced from the die plate 14 for positioning the sheet of material. Brandt does not utilize the slot to position the sheet of material. Key to the purpose of Brandt is the use of the lever to facilitate the inserting and removing the work with both operations accomplished by a single lever motion. This means that the lever is moved upward to allow for insertion of the sheet of material and then moved downward to create the piercing action. The slot of Brandt (area between 23 and 10) therefore must change in size as the machine of Brandt is operated as disclosed. The invention claims a fixed slot size as the method to locate the sheet of material, not upstanding pins 26.

Brandt discloses a machine with maximum leverage for piercing heavy material so it would not be obvious to combine the return spring of Capewell with the machine of Brandt since addition of a return spring to the Brandt machine would require additional

effort to pierce material because the force of the spring would need to be overcome during the piercing operation along with the strength of the material. The object of Brandt was to accomplish both piercing and material handling with a lever only. Brandt would not be improved with the additional of a return spring since that would result in decreased leverage, not optimized leverage.

Capewell discloses an adjustable apparatus acting as a stop but Capewell is disclosing a set of shears for cutting material from an edge of that material, not for piercing patterns into a sheet of material, as does the invention. The stop 31 of Capewell will stop the downward motion of the shear, but that merely limits the length of the cut into the sheet of material made by the shears while the invention uses a stop that limits the vertical motion of the punch and limit the amount of a designed pattern cut into the sheet of material. The function and use of the stop is totally different in Capewell and the invention. Another notable difference between the invention and Capewell is that Capewell has no slot to help locate a sheet of material and could not function properly if a slot was added since such a slot would severely limit the width of material that could be cut by the shear of the Capewell device.

To clarify the previous amendment regarding the Farmwald et al adjustable apparatus, the application stated: "With the disclosures of Farmwald et al, it is not possible to attach such an adjustable apparatus 48 to existing decorative punches whether such an attachment is permanent or temporary." See page 19 top paragraph of the Remarks section of the previous amendment of the application. As that paragraph states the adjustable apparatus of Farmwald et al requires a central shaft separate from the cutting die, which is not part of any decorative punch and not a part of the claims of this invention.

In summary, the prior art cited does not apply to this invention. Farmwald et al is not the same invention as discussed above while combinations of Farmwald et al, Tanaka, Brandt and/or Capewell are not an obvious way to create the invention. The distinguishing feature of the invention based on this amendment is the fixed size slot, which is not a part of any of the referenced prior art and is not obvious from that prior art.

Appl. No. 10/701,873

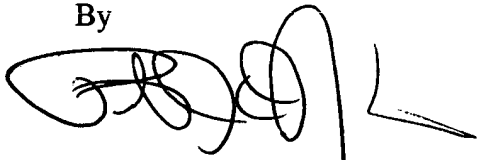
Amdt dated August 3, 2005 reply to Office Action of 6/14/2005

Note: In order to further clarify the invention, we have included a sample of paper punched with the invention and a sheet of directions on using the invention to make a variety of projects. We have also included one embodiment of the invention where the adjustable apparatus is separate from the punch. Obviously, the wedge portion of this adjustable apparatus could be incorporated into the body of the punch as described in the application.

Respectfully submitted,

CONSULTAR INC.

By

A handwritten signature in black ink, appearing to read 'Peter J. C. Normington', with a stylized flourish extending to the right.

Peter J. C. Normington

Patent Agent 50,308

Phone 480-892-6767

Fax 480-892-3156

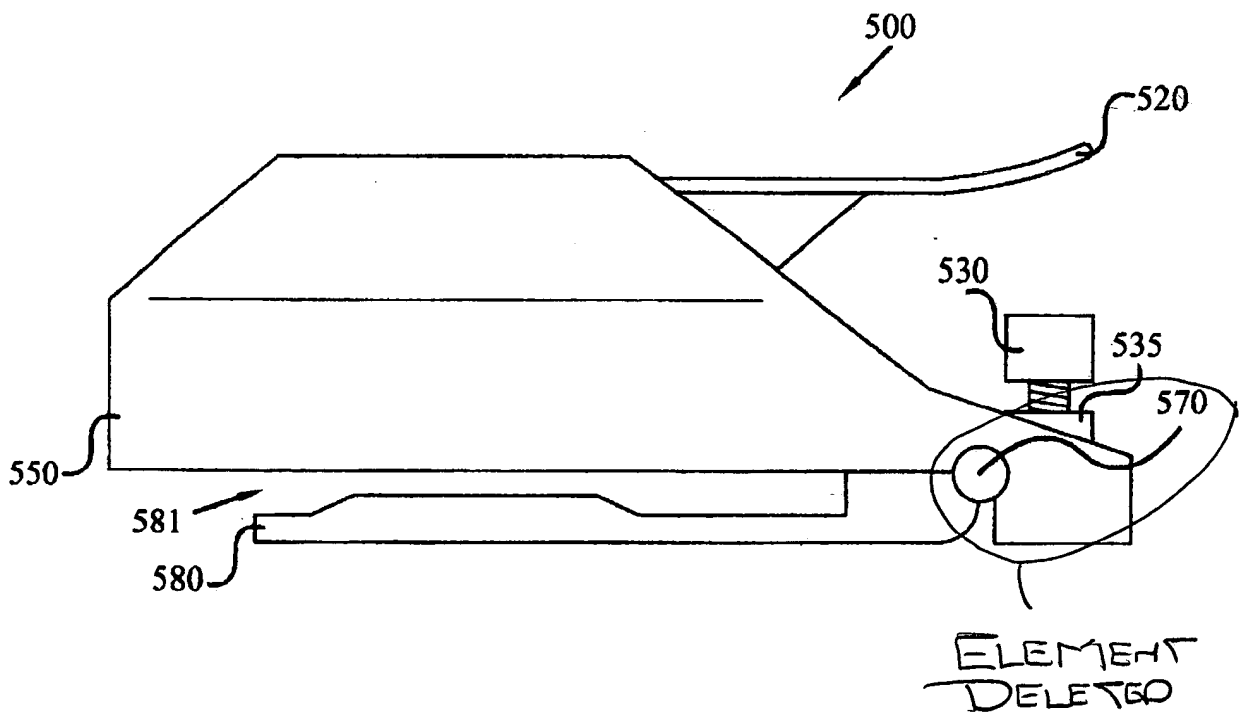


FIG 1

2/3

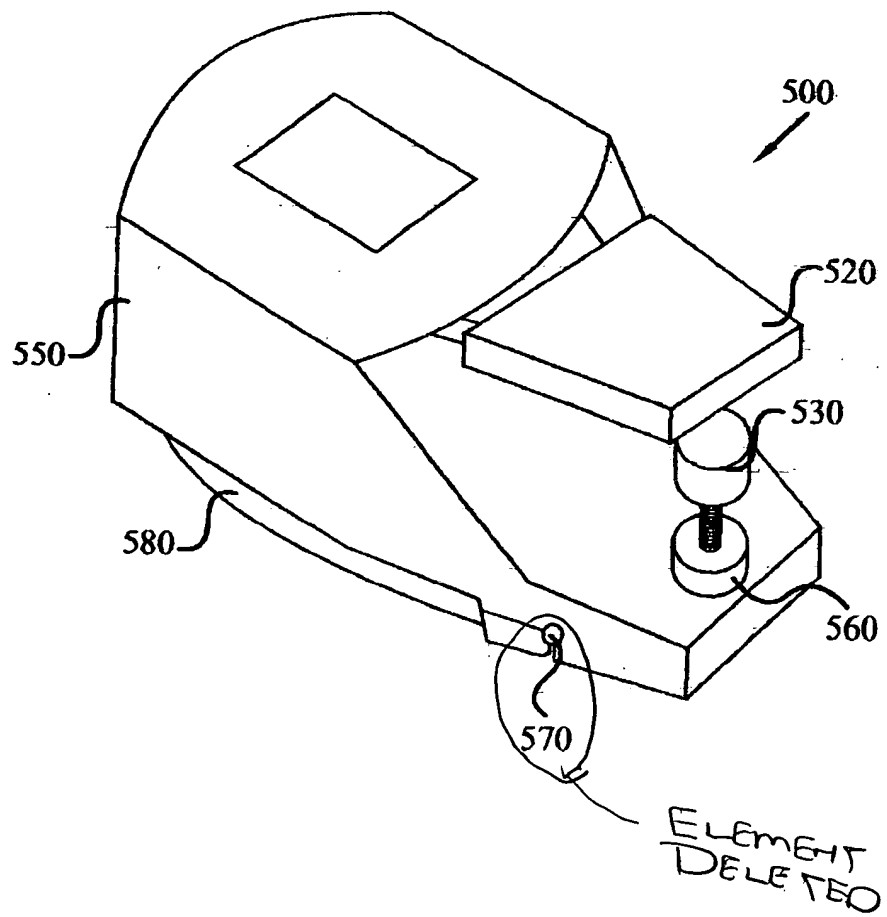


FIG 2